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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,213	10/28/2003	Robin Walton	200209560-1	4506

22879 7590 09/22/2006

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EXAMINER

NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,213

Applicant(s)

WALTON ET AL.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-12 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-12 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 07/14/2006. Claims 1-6, 9-12 and 20-22 are currently pending in the application. An action follows below:

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danzyger et al. (US 7,038,664 B2, hereinafter Danzyger) and further in view of Suzuki (US 6,307,539 B2).

As to claims 1-4, 12 and 20, Danzyger discloses an input device (10) (see Fig. 3) comprising a housing (see Fig. 3); a left-click actuator (a left button 16, see fig. 3) mounted to the housing; a right-click actuator (a right button 16, see fig. 3) mounted to the housing; a position-determining system (a system including a roller ball 12, see Fig. 2, col. 2, lines 52-54) mounted to the housing, the position-determining system being operative to detect and to determine movement of the bottom surface of the housing, relative to a surface upon which the housing is placed movement of the housing, and to provide a first output corresponding to the movement of the housing; and a trackball (20) (see Fig. 3, col. 3, lines 45-51) protruding from the top surface of the housing, the trackball being operative to rotate and to provide a second output corresponding to rotation of the trackball and to provide scroll functionality. Moreover, Danzyler teaches both the right-click and left-click actuators (16) together defining an aperture

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and the trackball protruding into the aperture (see Fig. 3). Accordingly, Danzyger discloses all the limitations of these claims except for a particular location of the right-click actuator around the trackball, thereby defining an aperture into which the trackball protrudes, as presently claimed.

However, Suzuki discloses a related input device (see Fig. 1) comprising a trackball (1) and an actuator (a switch 5, see Fig. 1) mounted to the housing and located around the trackball (1), thereby defining an aperture into which the trackball (1) protrudes (see Fig. 1, col. 5, lines 13-21). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to locate one of the Danzyger right-click and the left-click actuators around the trackball (20), thereby defining an aperture, in view of the teaching in the Suzuki reference, because this would allow the user to easily touch the actuator by using the same finger, which is used to rotate the trackball, as taught by Suzuki (see col. 5, lines 19-21). However, the combination of Danzyger and Suzuki as discussed above does not expressly teach to locate the right-click actuator or the left-click actuator around the trackball. Since Applicants have disclosed that the aperture is not necessarily defined by the right-click actuator and can be located adjacent to the right-click actuator (see page 4, lines 14-16). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to locate the Danzyger right-click actuator around the trackball, thereby defining an aperture into which the trackball protrudes, as desired, since a such modification would have involved a mere change in the location of the right-click actuator. Moreover, a change in location is generally recognized as being within the level of ordinary skill in the art, see **In re Japikse, 86 USPQ 70**

(CCPA 1950). Therefore, it would have been obvious to a person of ordinary skill in this art to combine Danzyger and Suzuki to obtain the invention as specified in claims above.

4. Claims 5, 6, 9-11, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danzyger in view of Suzuki, and further in view of Adams.

As to claims 5, 6, 9, 21 and 22, Danzyger further teaches the housing sized and shaped to fit in a user's hand (see Fig. 3) and the user's index finger operating the scroll wheel or the trackball (see col. 1, lines 28-36). Danzyger does not expressly disclose "the left-click actuator is configured such that when the housing is grasped by the user with the top surface of the housing substantially centered in the palm of the hand, the index finger of the user is aligned with the trackball and the thumb of the user is aligned with the left-click actuator" of claims 5 and 21, "the right-click actuator is configured such that when the housing is grasped by the user with the top surface of the housing substantially centered in the palm of the hand, the index finger of the user is aligned with the trackball and the right-click actuator" of claims 6 and 22, and "at least a substantial portion of the right-click actuator is located left of the centerline" of claim 9.

However, Adams discloses a related input device comprising a left-click actuator (a key 28, see Fig. 6) mounted to the left side of the housing and a trackball mounted to the top surface of the housing and having a portion located left of the center line, such that when the housing is grasped by the user with the top surface substantially centered in the palm of the hand, the index finger of the user is aligned with the trackball (32), the thumb of the user is aligned with the left-click actuator (28) (see Figs. 4 and 6). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to relocate Danzyger's the left-click actuator and

the trackball as well as the right click-actuator (because the right-click located around the trackball as discussed above) in view of the teaching in the Adams reference, because this would allow the user ergonomically and comfortably to operate the input device, as taught by Adams (see Abstract and Fig. 6).

As to claim 10, Adams further teaches the input device comprising a scrolling wheel (34) mounted to the housing such that when the housing is grasped by the user with the top surface substantially centered in the palm of the hand, the middle finger of a user is aligned with the scroll wheel (see Fig. 6, col. 7, line 66 through col. 8, line 2). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide the scroll wheel in the input device of Danzyger, in view of the teaching in the Adams reference, because this would provide an ergonomic input device having more functions available to the user (see col. 1, lines 35-45, col. 3, lines 31-51).

As to claim 11, the input device of Danzyger in view of Suzuki and Adams includes at least a substantial portion of the right-click actuator located left of the scroll wheel since the right-click actuator is located around the trackball as discussed above. Also see Fig. 4 of Adams.

5. Claims 1-4, 12, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (US 5,298,919) and further in view of Suzuki.

As to claims above, Chang discloses an input device (10) (see Fig. 1) comprising a housing (12) (see Fig. 1); a left-click actuator (a left button 42, see Fig. 1) mounted to the housing; a right-click actuator (a right button 42, see Fig. 1) mounted to the housing; a position-

determining system (a first locating member 16 including a roller ball 22, see Fig. 2) mounted to the bottom surface of the housing, the position-determining system being operative to detect and to determine movement of the bottom surface of the housing, relative to a surface upon which the housing is placed movement of the housing and to provide a first output corresponding to the movement of the housing (see col. 4, lines 39-42); a trackball (a third locating member 20, see Fig. 1) protruding from the top surface of the housing, the trackball being operative to rotate and to provide a second output corresponding to rotation of the trackball (see col. 4, lines 44-46); and a scroll wheel (a thumb wheel 26) for providing scroll functionality (see Fig. 1, col. 4, lines 42-45). Accordingly, Chang discloses all the limitations of these claims except for a particular location of the right-click actuator around the trackball, thereby defining an aperture into which the trackball protrudes, as presently claimed.

However, Suzuki discloses a related input device (see Fig. 1) comprising a trackball (1) and an actuator (a switch 5, see Fig. 1) mounted to the housing and located around the trackball (1), thereby defining an aperture into which the trackball (1) protrudes (see Fig. 1, col. 5, lines 13-21). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to locate one of the Chang actuators around the trackball (32), thereby defining an aperture, in view of the teaching in the Suzuki reference, because this would allow the user to easily touch the actuator by using the same finger, which is used to rotate the trackball, as taught by Suzuki (see col. 5, lines 19-21). However, the combination of Chang and Suzuki as discussed above does not expressly teach to locate the right-click actuator or the left-click actuator around the trackball. Since Applicants have disclosed that the aperture is not necessarily defined by the right-click actuator and can be located adjacent to the right-click

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actuator (see page 4, lines 14-16). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to locate the Chang right-click actuator around the trackball, thereby defining an aperture into which the trackball protrudes, as desired, since a such modification would have involved a mere change in the location of the right-click actuator. Moreover, a change in location is generally recognized as being within the level of ordinary skill in the art, see **In re Japikse, 86 USPQ 70 (CCPA 1950)**. Therefore, it would have been obvious to a person of ordinary skill in this art to combine Chang and Suzuki to obtain the invention as specified in claims above.

6. Claims 5, 6, 9-11, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang and further in view of Adams.

As to claims 5, 6, 9, 10, 21 and 22, Chang further discloses the housing sized and shaped to fit in a user's hand (col. 2, lines 43-44). Chang does not expressly disclose "the left-click actuator is configured such that when the housing is grasped by the user with the top surface of the housing substantially centered in the palm of the hand, the index finger of the user is aligned with the trackball and the thumb of the user is aligned with the left-click actuator" of claims 5 and 21, "the right-click actuator is configured such that when the housing is grasped by the user with the top surface of the housing substantially centered in the palm of the hand, the index finger of the user is aligned with the trackball and the right-click actuator" of claims 6 and 22, "at least a substantial portion of the right-click actuator is located left of the centerline" of claim 9, and "the scroll wheel is aligned with the middle finger of the user when the housing is grasped

by the user with the top surface of the housing substantially centered in the palm of the hand” of claim 10.

However, Adams discloses a related input device comprising a left-click actuator (a key 28, see Fig. 6) mounted to the left side of the housing and a trackball mounted to the top surface of the housing and having a portion located left of the center line, such that when the housing is grasped by the user with the top surface substantially centered in the palm of the hand, the index finger of the user is aligned with the trackball (32), the thumb of the user is aligned with the left-click actuator (28) (see Figs. 4 and 6). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to relocate Chang’s the left-click actuator, scroll wheel, and the trackball as well as the right click-actuator (because the right-click located around the trackball as discussed above) in view of the teaching in the Adams reference, because this would this would allow the user ergonomically and comfortably to operate the input device, as taught by Adams (see Abstract and Fig. 6).

As to claim 11, the input device of Chang in view of Suzuki and Adams includes at least a substantial portion of the right-click actuator located left of the scroll wheel since the right-click actuator is located around the trackball as discussed above. Also see Fig. 4 of Adams.

Response to Arguments

7. Applicant's arguments with respect to the rejections under 35 USC 102 to independent claim 1, in the previous Office action dated 06/12/2006, have been considered but are moot in view of the new ground(s) of rejection.

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8. It is noted Applicant that the claim objections and the rejections under 35 USC 112, second paragraph, in the previous Office action dated 12/10/2004, have been rendered moot in light of the amendments to claims. These objections and rejections are hereby withdrawn.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHN
September 17, 2006

A handwritten signature in black ink, appearing to read 'JH Nguyen', with a long horizontal flourish extending to the right.

Jimmy H. Nguyen
Primary Examiner
Technology Division: 2629